Upstream Oil & Gas

Real-Time Operations Management

INTRODUCTION
During the past several years, operational costs for oil and gas production fields have more than doubled, and field life requirements have been extended by as much as 500 percent. Due to the soaring costs for development and the increased demand, oil and gas production assets must achieve very high throughput rates while improving energy efficiency, safety, and reducing emissions levels. During which, oil and gas production fields are faced with greater flow assurance challenges.

Operations costs have become one of the largest variable costs of oil and gas production assets. In most facilities, the costs of operations change significantly in real time, as conditions require personnel to travel to and from the fields or facilities. Energy has emerged as one of the top challenges — specifically, how to enhance recovery and maintain sufficient system pressures, especially during challenging weather conditions.

Many initiatives and offerings that are available focus directly on production, energy, and yield management, with most involving large expenditures that may not drive results for year or more. Industrial executives are continually searching for new approaches to operations management that are more aligned with today’s business environment.

PART OF AN ENTERPRISE APPROACH
Real-Time Operations Management addresses specific operations management issues that drive immediate bottom line value within oil and gas operations. Various operations management programs are currently available in the market today, and Invensys’ Real-Time Operations Management complements these programs and increases their overall effectiveness in the industry.

By using an effective operations management program from Invensys, oil and gas operations can keep pace with the speed and demand of today’s changing business environment.
Invensys proactively drives solutions value and sustainability by continuously improving technologies for oil and gas operations with Real-Time Operations Management. By applying safer techniques, such as alerting operators and engineers before issues arise, oil and gas operations will promote safer elements for evolving performance cultures.

**Real-Time Operations Measurement**
- Model-based, real-time measurement of current production by component at each well, and asset throughput, energy and cost accounting
- Key performance indicators at each production, transfer, or export point in the oil and gas asset or group of fields
- Asset-wide real-time inventory, emissions, efficiency, and maintenance cost accounting with contexts from the ERP and Supply Chain Management systems

**Real-Time Operations Empowerment**
- Multi-level, role-specific intelligence views that empower personnel
- Robust, real-time forecasting and prediction of impending events, especially for production and processing anomalies
- Role- and condition-based alerts and adaptive collaboration guided by supervisors and specialists
- Real-Time Operations Intelligence that delivers 3-6% average increases in throughput, improvements in critical production measures, and decreases operations costs by up to 5%

**Real-Time Operations Control**
- Reduced unplanned outages by up to 33%
- Increase utilization by more than 2% and reduce energy by more than 5% per year
- Invensys Consultants specialize in maintenance, energy, remote collaboration, and safety improvements. They analyze current safety and control strategies, and recommend specific actions to drive improvements with projected values.
- Invensys Delivery specialists team with client engineering to implement improvements

**Real-Time Operations Optimization**
- Proactive guidance allows users to make informed decisions about conflicts, such as short-term and long-term throughput, energy, and well life
- Invensys Consultants analyze current operational strategies, business plans, and operations culture, and recommend decisions and actions to drive and measure the value of each improvement
- Improvements from Real-Time Operations Control and Optimization delivers additional reductions in energy cost from 3-8%
Real-Time Operations Management
Contextualized within Enterprise Operations Management

CORPORATE OPERATIONS MANAGEMENT

Technical Services
Corporate Production Planning
Drilling Operations
Emissions Reduction
CER Trading

Supply Planning
Energy Trading
Investment Planning

Invensys Real-Time Operations Management

Real-Time Operations Optimization
Real-Time Operations Empowerment
Real-Time Operations Measurement
Real-Time Operations Control

Earn CER From CDM
Risk Management
Contract Management